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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,561	06/18/2001	Garry I. Holloway	WAT0119	1090

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EXAMINER

LEVINE, ADAM L

ART UNIT PAPER NUMBER

3625

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/883,561	<b>Applicant(s)</b> HOLLOWAY, GARRY I.	
	<b>Examiner</b> Adam Levine	<b>Art Unit</b> 3625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-11, 13, 14 and 21-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 13-14, and 21-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

Applicant filed amendments and remarks on February 21, 2006, in response to the office action mailed October 20, 2005. Drawing Fig.1 has been amended to indicate that it is prior art. Drawing Figs.2-6 have not been amended. Claims 1,8,21,29, and 34 have been amended. Claim 39 is new. Claims 1-4,6-11,13-14, and 21-39 are pending and have been examined in this office action.

### ***Response to Amendment***

#### **Pertaining to objections to the drawings in the previous office action**

The drawings were objected to in the previous office action for failing to show all of the claimed features. In light of applicant's remarks accompanying amendments to the claims, and discussions during the interview of December 20, 2005 (Paper No.051220), these objections are withdrawn.

The drawings were also objected to for failure to designate prior art. Pursuant to discussions in the aforementioned interview, and the amendment of Fig.1 to designate prior art, this objection is withdrawn.

### ***Response to Arguments***

Applicant's arguments filed February 21, 2006, have been fully considered but they are not persuasive. Upon further consideration, a new ground(s) of rejection is also made under 35 USC 112.

*Pertaining to rejections under 103(a) in the previous office action*

Applicant's claim elements include determining values for attributes that contribute to visual appeal. These attributes include elements such as brilliance, fire, scintillation, and diameter spread. The attribute values are derived from parameter values that include depth percentage, table percentage, crown angle or percentage, pavilion angle or percentage, culet percentage and girdle thickness. A rating is based on the values of the attributes derived from the parameters. Applicant argues that because these ratings are not monetary values and the invention is not directed at the establishment of a price, that the invention is therefore distinguishable from the prior art. The prior art uses the same parameters to determine relationships affecting the price. Price is another attempt to objectively quantify the value of a gem. In this context it is functionally the same as the applicant's objective rating, an attempt to generate an objective numerical value for a gem based on its characteristics. Although the applicant argues that price is not the same as subjective beauty and desirability, subjective beauty and desirability are not inherently quantifiable. Applicant's attempt to claim an objective rating system to objectify subjective beauty results in a claimed system and method that is functionally the same as that of the prior art.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "conversion of measured physical proportions of the gem stone into visual appeal attribute values," "(accounting) for the interrelationship between cut proportions in order to assess the gem stone, for example by deriving adjustments from combinations of at

Art Unit: 3625

least three proportions of the gem stone,” and “(generating) values for a plurality of visual appeal attributes which can then be accorded numerical weightings, to provide not only individual quantifiable values... but also a total score based upon a combination...” are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In the claims, attribute values are derived from measured physical proportions, but the measured physical proportions (parameters) are the same as in the prior art. The derivation of attributes is not distinguished in any way, and the functional role of the attributes in the method is not claimed in such a way as to clearly point out and distinctly claim their role as distinct from the prior art use of the parameters. If the attributes have a distinct identity and functional role that is distinguishable from the mere combination or comparison of parameters, then those distinctions must be made clear in the claims in a way that clearly distinguishes the present method from the prior art.

Applicant argues that Malnekoff “makes no attempt to account for the interrelationship between cut proportions in order to assess the gem stone, for example by deriving adjustments from combinations of at least three proportions of the gem stone.” This feature appears in Malnekoff claims 1 and 14 in detail similar to that claimed in the present application (“two or more” in Malnekoff, “at least three” in present application. Note that “two or more” encompasses “at least three.”).

While applicant remarks that “predetermined consumer preferences” may appear subjective, this may be a misunderstanding of the previous action. The term

“predetermined consumer preferences” is not understood as subjective with regard to the present application, as the element is predetermined, and is at least a predefined statistical element. However, “subjective beauty and desirability” is subjective, and will be addressed below.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 1. Claims 1-4,6-11,13-14, and 21-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

The term “subjective beauty and desirability” in claims 1,8,34, and 39 is a relative term which renders the claim indefinite. The term is inherently subjective and results in a contradiction within the claims themselves. The claims define an assessment based on rating value and/or said values of attributes. These values are objective values as defined by the claims. The assessment of the beauty and desirability of the gemstone to the user is wholly dependent upon the extent to which the user’s tastes conform to those stored in the tables and gathered from other sources (the “predetermined consumer preferences”). It therefore cannot be both subjective and based upon the values defined in the claims and specification. If the assessment provided is concrete, tangible, and repeatable, as the claims and especially the specification describe, then the specification cannot also provide a standard for ascertaining the subjective beauty

and desirability to the user. That determination would be wholly dependent upon the user, whose subjective tastes are indeterminate. This may be merely the result of an inaccurate use of the phrase "subjective beauty and desirability" in the context of the claims. In any case, the result is that one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 1-4, 6-11, 13-14, 26-28, 34-36, and 39 are rejected under 35 U.S.C.**

**103(a) as being unpatentable over Malnekoff (US Patent No. 6,304,853) in view of Rubin (US Patent No. 4,527,895):**

Malnekoff teaches a system and method for providing a user with an assessment of the beauty and desirability of a gemstone. For example, Malnekoff teaches receiving data unique to a gemstone from a user via an input device and generating an evaluation report including a description of the qualities of a gemstone (see at least abstract). Malnekoff also teaches communicating the report with the description to the user via an output device (see at least abstract). Malnekoff further teaches:

- a computer receiving a plurality of objective parameter values from the user relating to the measured physical proportions of a gem stone: (see at least

column 4 lines 12-36, column Fig.4); objective parameter values at least include a depth percentage, table percentage, crown angle or percentage, pavilion angle or percentage, culet percentage and girdle thickness (see at least column 1 lines 33-44, column 4 lines 24-45. Please note: these are cut measurements and cut proportions. Use of a number of these objective gemstone parameter types is inherent in any gemstone measurement system or method); objective parameter values are received electronically over a telecommunications network link such as the internet (see at least Fig. 2, column 2 lines 31-37, column 3 lines 27-35); a computer input device for the user to enter said plurality of objective parameter values (see at least abstract, Fig.1-3); a computer display device for displaying gem stone assessment to user (see at least abstract, Figs.1-3,7).

- the computer determining values for a plurality of attributes of the gem stone contributing to visual appeal: each of said attribute values being derived from a combination of three or more of the received objective parameter values, the derivation being based upon predetermined consumer preferences (see at least column 4 line 58 – column 5 line 5); wherein the attributes include one or more of brilliance, fire, scintillation and diameter spread (see at least column 4 lines 24-45, column 4 line 58 – column 5 line 5. Please note: use of these attributes is inherent in any gemstone appraisal system or method).
- the computer establishing a rating value of the gem stone based upon said values of attributes contributing to visual appeal: applying an adjustment to one or more of the values of attributes contributing to visual appeal and/or the rating



value in accordance with one or more of vertical spread, table size, girdle thickness, culet size, half facets, symmetry, polish (see at least column 4 line 58 – column 5 line 18, column 5 lines 27-33. Please note: price is a rating value, and where it is adjusted based on attributes affecting the “look” of the gemstone, this is the same as establishing the rating value based on attributes contributing to visual appeal).

- providing a gem stone assessment including a description of the visual appearance of the gem stone based upon the determined values of attributes contributing to visual appeal and/or the established rating value: (see at least column 2 lines 20-23, column 5 lines 61-65, column 6 lines 60-62); includes a numerical value corresponding with the rating value (see at least column 2 lines 15-30, column 4 lines 18-23, column 4 line 37-column 5 line 18).
- the gem stone is a diamond: (see at least column 1 lines 58-65, column 5 lines 27-33. Please note: the type of gem stone has no functional role in the method and is therefore non-functional descriptive material. This descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381 , 1385, 217 USPQ 401, 404 (Fed. Cir. 1983). MPEP 2106).
- Computer program product including computer readable code within said computer usable medium implementing steps in a method: (see at least Figs.2,3,5; column 3 line 53-58, column 7 line 11-17).

Malnekoff teaches all of the above as noted under the 103(a) rejection and teaches a) indexing a data structure based on gem stone characteristics, b) computing an adjustment factor taking into account additional factors, c) the additional factors including current market conditions, jeweler preferences, and differing expert opinions, and d) adjusting the indexed value using the adjustment factor. Malnekoff, however, does not explicitly disclose providing an assessment of the subjective beauty and desirability of the gemstone to the user. Rubin (US Patent No. 4527895) teaches

- providing an assessment of the subjective beauty and desirability of the gemstone to the user: based upon said rating value and/or said values of attributes contributing to visual appeal (see at least column 1 lines 33-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and method of Malnekoff to include providing an assessment of the subjective beauty and desirability of the gemstone to the user, as taught by Rubin, in order to make the evaluations provided by Malnekoff more meaningful to the user and thereby attract more users and increase the purchasing of diamonds.

*Pertaining to computer readable medium Claims 8-11 and 13-14*

Rejection of Claims 8-11 and 13-14 is based on the same rationale as noted above.

**2. Claims 21-25, 29-33, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malnekoff in view of Rubin, as applied to claims 1, 8, and 34 above, and further in view of Shannon (US Patent No. 5,966,673).**

Malnekoff and Rubin teach all of the above as noted under the 103(a) rejection and teach a) retrieving attributes contributing to visual appeal from one or more lookup tables indexed using three or more parameters, and retrieving attribute values from lookup tables, b) indexing by combinations of attribute values, c) adjusting rating value using values of attributes, and d) establishing a desired attribute by combining attributes contributing to visual appeal. Malnekoff and Rubin, however, do not disclose retrieving values of attributes contributing to visual appeal from one or more lookup tables indexed by a combination of three or more objective parameter values with entries in the lookup tables predetermined using a computer software program for performing virtual diamond analysis and obtained by analyzing actual diamonds, computing values of attributes contributing to visual appeal from a virtual model of a diamond corresponding with the received objective parameter values using a computer software program for performing virtual diamond analysis, rating value established by summing the values of attributes contributing to visual appeal applying a corresponding numerical weighting to each of said values of attributes, and summing the weighted attribute values, and an interface with a diamond proportion measuring device for receiving proportional parameters of a diamond measured by said measuring device.

Shannon teaches retrieving values of attributes contributing to visual appeal from one or more lookup tables indexed by a combination of three or more objective

Art Unit: 3625

parameter values (see at least column 7 lines 24-32, column 8 lines 28-34, column 9 lines 52-67, column 12 lines 30-37, column 28 line 47 – column 29 line 12, column 49 lines 12-67); entries in the lookup tables are predetermined values computed using a computer software program for performing virtual diamond analysis and obtained by analyzing actual diamonds (see at least column 7 lines 24-32, column 9 lines 61-67, column 11 lines 24-46, column 52 lines 45-50). Shannon further teaches:

- computing said values of attributes contributing to visual appeal from a virtual model of a diamond corresponding with the received objective parameter values using a computer software program for performing virtual diamond analysis: (see at least column 49 lines 2-67, column 11 lines 1-46).
- rating value established by summing the values of attributes contributing to visual appeal: (see at least column 10 lines 26-35); applying a corresponding numerical weighting to each of said values of attributes, summing the weighted attribute values (see at least column 12 lines 38-46, column 13 lines 21-30, column 18 lines 25-43, column 49 lines 31-36).
- an interface with a diamond proportion measuring device for receiving proportional parameters of a diamond measured by said measuring device: (see at least column 7 lines 17-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the methods and system of Malnekoff in view of Rubin to include retrieving values of attributes contributing to visual appeal from one or more lookup tables indexed by a combination of three or more objective parameter values

with entries in the lookup tables predetermined using a computer software program for performing virtual diamond analysis and obtained by analyzing actual diamonds, computing values of attributes contributing to visual appeal from a virtual model of a diamond corresponding with the received objective parameter values using a computer software program for performing virtual diamond analysis, rating value established by summing the values of attributes contributing to visual appeal applying a corresponding numerical weighting to each of said values of attributes, and summing the weighted attribute values, and an interface with a diamond proportion measuring device for receiving proportional parameters of a diamond measured by said measuring device, as taught by Shannon, in order to make the evaluations provided by Malnekoff in view of Rubin more meaningful to the user and thereby attract more users and increase the purchasing of diamonds.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam Levine whose telephone number is 571.272.8122. The examiner can normally be reached on M-F, 8:30-5:00 Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogesh C. Garg can be reached on 571.272.6756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Adam Levine  
Patent Examiner  
July 10, 2006



Jeffrey A. Smith  
Primary Examiner